



United Nations
Environment
Programme



Distr.
LIMITED

UNEP/WG.7/20(ABS)
2nd March 1977

Original: ENGLISH

UNEP Meeting of experts designated by
Governments, Intergovernmental and
Non-Governmental Organizations on
the Ozone Layer

Washington, D.C., 1-9 March 1977

U.K. STUDIES ON THE STRATOSPHERE AND THE
POSSIBLE EFFECTS OF STRATOSPHERIC POLLUTION - SUMMARY

In addition to continuing basic studies of the natural stratosphere carried out by the Meteorological Office, other Government Departments and Universities for many years, the U.K. has recently organised two major research programmes on problems of stratospheric pollution.

(a) A three year programme directed by the Committee on Meteorological Effects of Stratospheric Aircraft (COMESA) from 1972-5. The principal conclusion of the COMESA Report was that the small number of supersonic transports likely to be in commercial operation during the foreseeable future would not cause a detectable change in stratospheric ozone amounts or in the global climate. The possible effects of a large expansion of stratospheric flights to higher altitudes would, however, require further study.

(b) A continuing programme on all aspects of stratospheric pollution problems coordinated by the P.T.O. Central Unit on Environmental Pollution (CUEP), U.K. Department of the Environment. The major effort at present is directed towards the possible effects of chlorofluorocarbon releases and involves measurements of atmospheric minor constituents (including the use of Concorde aircraft for this purpose), laboratory studies, estimations of chemical sources and sinks and modelling studies mainly by groups in the U.K. Atomic Energy Establishment (AERE), the Meteorological Office and several Universities. The position reached in this work is summarised in Pollution Paper No. 5, "Chlorofluorocarbons and Their Effect on Stratospheric Ozone", U.K. Department of the Environment. The principal conclusion of this report is that, while many of the hypotheses regarding the possible effects of chlorofluorocarbon releases are plausible and

warrant further attention, the uncertainties in present knowledge are so great that further scientific research should be continued over the next two years at least to help resolve some of the outstanding issues before decisions regarding regulation can reasonably be made. Accordingly, the U.K. is devoting considerable effort to these studies and welcomes increased international cooperation to obtain the necessary scientific progress as soon as possible.

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